



2013 HyspIRI Products Symposium

Theme: “HyspIRI Products for Societal Benefit Areas (SBAs) and Aquatic Studies”

Dates: May 29 – 30 (Wed-Thu) 2013

Location: NASA/GSFC, Building 34, Conference Room W150, Breakout Rooms W120A & W120B

First Day - May 29, 2013

8:00am Registration/ Posters Up/ Coffee

8:30am-9:30am Opening [*Chair Elizabeth Middleton NASA/GSFC, Room W150, 15 min each*]

- Current status of HyspIRI mission [*Woody Turner, NASA HQ co-Program Scientist*]
- The NASA Applied Sciences Program and the US Group on Earth Observations SBAs: Earth Sciences Serving Society [*Lawrence Friedl, NASA HQ Associate Director for Applied Sciences*]
- Aircraft campaign – status update, sites, flight plans [*Woody Turner & Ian McCubbin, NASA/JPL*]
- Past symposia and Goals and agenda of the current symposium [*Elizabeth Middleton*]

9:30am -10:00am Coffee Break

10:00am – 12:00pm Ecological Forecasting for Terrestrial and Aquatic Ecosystems [*Chair Susan Ustin, UC Davis; 5 presentations, 20 min each, Room W150*]

- Improving ecological forecasting with hyperspectral data: A data assimilation system for the Community Land Model [*Andrew Fox, NEON*]
- Plant functional types [*Susan Ustin, UCD*]
- Applying NASA HyspIRI Observations to Precision Vegetation Mapping for Ecological Forecasting Applications [*Lori Bruce, MS State: TBD*]
- Ecological forecasting in arid and semi-arid ecosystems [*Andrew French, USDA*]
- HyspIRI ecosystem products and ensuring long-term records/continuity [*Fred Huemmrich, UMBC*]
- EO-1 spectral time series [*Petya Campbell, UMBC*]
- HyspIRI products for Global Ecosystem Dynamics [*TBD*]

12:00pm – 1:00pm Lunch

1:00pm-3:00pm (W150) Coastal and Inland Aquatic Data Products/Topical Areas [*Chair Kevin Turpie, UMBC; W150*]

- HyspIRI Aquatic Data Product Working Group Report [*Kevin Turpie*]
- Hyperspectral Imager for Coastal Ocean (HICO) [*Bo-Cai Gao, Naval Research Lab*]
- Use of HyspIRI Observations to get Phytoplankton Functional Groups [*John R. Moisan, NASA/WFF*]
- Improved Absorption and Taxonomic Composition Estimates With HyspIRI [*Tiffany A. Moisan, John R. Moisan and Rachel Steinhardt; NASA/WFF*]
- Angular dependence on sand density of the spectral BRDF [*Bill Philpot, Chip Bachmann, and Andrei Abelev, organization(s)?*]
- Aquatic Studies with HyspIRI Preparatory Airborne Campaign [*Raphe Kudela, UCSC; Liane Guild, NASA/ARC & Sherry Palacio, UCSC; possibly remote*]

3:00pm – 3:30pm Coffee Break

3:30pm-3:50pm HyspIRI Aircraft campaign: Science goals, project overviews and data sharing [*Rob Green & Simon Hook, NASA/JPL*]

3:50pm-4:00pm Discussion Sessions, Goals/charge of the groups [*Elizabeth Middleton & Petya Campbell*]

4:00pm-5:30pm (W120A and W120B) Discussions [*60 min*]

- Coastal/Inland Aquatic Products issues, products & requirements [*Turpie, duration up to 2hrs*]
- Ecological forecasting, issues, products & requirements [*Susan Ustin*]

5:30pm Summary/Adjourn

6:30pm Happy Hour & Dinner at Ruby Tuesdays



Second Day - May 30, 2013

8:00am Registration/ Posters Up/ Coffee

8:30am-10:00am (W150) Environmental and Human Impacts including Disasters, Natural Hazards, Water Management and Public Health [Chair Jeff Luvall, NASA MSFC]

- Traceability matrix, HyspIRI products in support of SBA requirements [*Luvall*]
- Desert dust:
 - Sources & mineralogy [*Bill Sprigg, Pan American Center for World Meteorological Organization Sand & Dust Warning Assessment System*]
 - Public Health impacts of Middle Eastern Dust [*Mark Lyles, U.S. Naval War College*]
- Ecologic niche models for neglected tropical diseases (NTD) in data-scarce landscapes based on environmental suitability and poverty-related risk factors at the census tract level used for operational community-based intervention programs [*John B. Malone, Louisiana State University*]
- Gulf Islands National Seashore - Satellite imaging requirements for barrier island/near shore management [*Matthew Johnson, National Park Service*]
- Discussion

10:00am-10:30am Coffee Break

10:30am -12:00pm (W150) Automated, Rapid Processing for Low Latency Data Products [Chair, NASA GSFC/Dan Mandl]

- Big data for rapid scientific collaboration [*Bob Grossman, OCCP Matsui*]
- An open GeoSocial API to meet societal needs [*Pat Cappelaere, Vightel Co.*]
- IPM/Low latency data users: requirements overview [*Dan Mandl, NASA/GSFC*]
- Rapid geo-referencing [*Jacqueline Lemoigne-Stewa, NASA/GSFC*]
- Atmospheric Correction on the cloud [*Vuong Ly, NASA/GSFC*]
- Discussion

12:00pm – 1:00pm Lunch

DEMO: ENVI Services Engine for Web-Accessible HSI Applications [EVIS/Thomas Harris]

1:00pm – 2:20pm (W150)

- HyspIRI Spectral Library: concept, status and requirements [*Simon Hook, NASA/JPL*]
- Current and future hyperspectral instruments [*Michael Abrams, NASA/JPL*]
- HyspIRI products for volcanoes assessment and forecasting [*Robert Wright, UHI*]

2:20pm-4:00pm HyspIRI products in support of Societal Benefit Areas - Interactive Session

Reports from Discussion Sessions [session chairs, 20 min each]

- Coastal and Inland Aquatic Data Products Break-Out Report [*Kevin Turpie*]
- Ecological Forecasting for Terrestrial and Aquatic Ecosystems, Discussion Report [*Susan Ustin*]

Open Discussion on topics below [Elizabeth Middleton, Rob Green, Simon Hook & Woody Turner]

- HyspIRI products to collaborate with NEON
- HyspIRI products to collaborate with other missions

4:00pm-4:30pm Coffee Break

4:30pm-5:30pm (W150) Summary, make & review report outline [*Elizabeth Middleton & Petya Campbell*]

5:30pm Adjourn